

CITY OF PHILADELPHIA
Department of Public Health
Public Health Services
Air Management Services

Statement of Basis

To: File
From: Biji Pandisseril
Date: 7/8/11
Subject: To ensure compliance of the Consent Decree for the Heaters, Boilers, and Flares

Description:

Sunoco has submitted a plan approval application to document the compliance requirement of the Consent Decree Order No. 05-CV-2866.

Summary:

The facility is a major source as due to the facility's potential to emit Volatile Organic Compounds (VOC), Nitrogen Oxides (NO_x), Particulate Matter less than 10 microns (PM-10), Sulfur Oxides (SO_x), Carbon Monoxide (CO), and Hazardous Air Pollutants (HAPs).

Sunoco is required by the Consent Decree to comply with NSPS Subpart J of each boiler, heater, and flare as listed in Appendix D and G of the Consent Decree. There are no equipments installation or emission increase for this project. Therefore is does not trigger any additional requirements.

Permit Requirements:

NSPS

Flares:

The flares are required to meet NSPS Subpart A and J by meeting one or combination of the following requirements:

- (i) Operating and maintaining a flare gas recovery system to prevent continuous or routine combustion in the NSPS Hydrocarbon Flaring Device. Use of a flare gas recovery system on a flare obviates the need to continuously monitor emissions as otherwise required by 40 C.F.R. § 60.105(a)(4);
- (ii) Eliminating the routes of continuous or intermittent, routinely-generated refinery fuel gases to an NSPS HC Flaring Device and operating the Flaring Device such that it only receives non-routinely generated gases, process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions; or
- (iii) Operating the NSPS HC Flaring Device as a fuel gas combustion device, monitoring it for the continuous or intermittent, routinely-generated refinery fuel gases streams put into the flare header, with
 - (A) a CEMS as required by 40 C.F.R. § 60.105(a)(4); or
 - (B) a parametric monitoring system as approved by EPA; or
 - (C) an alternative monitoring system as approved by EPA.

Heaters and Boilers:

As required by the Consent Decree all heaters and boilers are required to meet NSPS Subpart J. The fuel gas burnt in the heaters and boilers are subject less than or equal to 230 mg/dscm (0.10 gr/dscf) H₂S. To

ensure compliance the H₂S the boilers and heaters are required to be equipped with H₂S monitors meeting the following requirements:

- (i) The span value for CEMs shall be 425 mg/dscm H₂S.
- (ii) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned.
- (iii) The performance evaluations for this H₂S monitor under §60.13(c) shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

Sunoco will monitor the H₂S of all fuel gas used the heaters and boiler at locations as listed in the table below.

Analyzer Location	V-10001 Fuel Gas Mix Drum CEM (PB)	1V-148 Fuel Gas Mix Drum CEM (GP)	1332 H-2 CEM (GP)	868 H ₂ S CEM (PB)
Heater and Boilers	210 H-101 (CU-101)	1232 B-104 (CU-004)	1332 H-2 (CU-009)	868 8H-101 (CU-129)
	210 H-201 (CU-102)	1332 H-1 (CU-005)		
	210 13H-1 (CU-103)	1332 H-602 (CU-006)		
	859 1H-1*	1332 H-601 (CU-007)		
	860 2H-2 (CU-109)	1332 H-401 (CU-010)		
	860 2H-3 (CU-110)	1332 H-400 (CU-011)		
	860 2H-4 (CU-111)	1332 H-3 (CU-012)		
	860 2H-5 (CU-112)	137 F-1 (CU-013)		
	860 2H-7 (CU-114)	137 F-2 (CU-014)		
	860 2H-8 (CU-115)	137 F-3 (CU-015)		
	864 PH-1 (CU-118)	231 B-101 (CU-016)		
	864 PH-7 (CU-123)	433 H-1 (CU-017)		
	864 PH-11 (CU-124)	3BH #37 Boiler (CU-018)		
	864 PH-12 (CU-125)	3BH #39 Boiler (CU-020)		
	865 11H-1 (CU-126)	3BH #40 Boiler (CU-021)		
	865 11H-2 (CU-127)			
	866 12H-1 (CU-128)			
	870 H-1			
	870 H-2			

GP = Girard Point

PB = Point Breeze

*Plan Approval 06144 incorrectly identifies 859 1H-1 heater as 1H-5

The facility is also required to submit quarterly cems data and reports of excess emissions.